

ELECTRIC MOTOR WITH ENCODER

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ABSTRACT OF THE DISCLOSURE

10 An assembly of electric motor with encoder,  
including an electric motor having a motor housing, and  
an encoder for detecting the rotation angle of the output  
shaft of the electric motor. The encoder includes a  
frame member attached to the motor housing in a  
conductive manner, a circuit board supported on the frame  
member and a detection circuit provided in the circuit  
15 board. The assembly of electric motor with encoder  
further includes an output signal cable connected to the  
circuit board of the encoder and including a signal wire  
and a shield member, and a grounding mechanism  
electrically connecting the shield member of the output  
20 signal cable to the motor housing for grounding purposes.  
The grounding mechanism includes a conductor patterned on  
the circuit board, a first connecting structure mutually  
connecting the conductor to the shield member, and a  
second connecting structure mutually connecting the  
25 conductor to the frame member. The second connecting  
structure includes a through-hole plating provided in the  
circuit board to be connected to the conductor, and a  
fastening element inserted into a through hole having the  
through-hole plating and securing the circuit board onto  
30 the frame member. When the fastening member is fastened,  
the through-hole plating comes into conductive contact  
with the frame member.